UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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DAVID DERIENZO,

Plaintiff,

- against - 02 CIV 6763 (CM) (GAY)

TREK BICYCLE CORPORATION,

Defendant.

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MEMORANDUM DECISION
DENYING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT
AND RULING ON THE ADMISSIBILITY OF PLAINTIFF'S EXPERTS' OPINIONS

McMahon, J.:

This is an action to recover damages for personal injuries sustained by Plaintiff David DeRienzo when his bicycle frame failed on July 4, 2001, in Newburgh, New York.[1] Plaintiff, a New York resident, commenced this action against Defendant Trek Bicycle Corporation ("Trek"), a Wisconsin corporation[2] and the manufacturer of the bicycle at issue, asserting claims

[1] The action was originally filed in New York State Supreme Court, Orange County; Defendant filed a Notice of Removal in this Court on August 23, 2002.

[2] The Plaintiff does not contest diversity jurisdiction. However it is unclear from the papers where Defendant is incorporated. Defendant stated in its Answer, dated September 24, 2002, that it is a Wisconsin corporation with its principal place of business in Waterloo, Wisconsin (par. 2). However, in its Notice of Removal, Defendant stated that it is a Michigan corporation with its headquarters in Waterloo, Wisconsin. For purposes of diversity, it is irrelevant whether Defendant is a Wisconsin or Michigan corporation, as long as it is one of the two and not New York. Referring to the Answer, the more authoritative and more recent document, I will assume for purposes of this motion that Defendant is a Wisconsin corporation.

of negligence, breach of warranty, and strict products liability (including claims of manufacturing defect and failure to warn). Plaintiff has withdrawn a design defect claim. (See Plaintiff's Memorandum of Law in Opposition to the Motion of Defendant Trek Bicycle Corporation for Summary Judgment, dated Feb. 2, 2004, at 1, n. 1.)

Defendant requests a hearing under Federal Rules of Evidence 702 and 104(a) – a Daubert hearing – to evaluate Plaintiff's experts, and moves for summary judgment on the strict products liability manufacturing defect, failure to warn and breach of warranty claims.[3]

I. Facts

Except where noted, the following facts are undisputed:

Plaintiff was the rider of a used, modified 1998 Trek Y5 mountain bike (the "Bike") that crashed on July 4, 2001 in Newburgh, New York. Defendant Trek designed and manufactured the aluminum frame on the Bike. As evidenced by the description "used" and "modified," Plaintiff was not the original purchaser of the Bike, and, at the time of the accident, the Bike had been modified and did not consist of all original Trek components.

The accident did not occur while Plaintiff was simply riding the Bike. Rather, Plaintiff was landing after jumping or dropping the Bike five to eight feet off a ledge created by a rock sticking out of the side of a hill.

It is not disputed that Plaintiff was seriously injured in the accident, although he does not elaborate on the nature or extent of his injuries. (See Complaint, dated July 31, 2002, at par. 22.)

A. Plaintiff's Mountain Biking Background

[3] Defendant did not move for summary judgment on the negligence claim.

Plaintiff has an extensive background in mountain biking, and has ridden mountain bikes since age 12. He has mountain biked over various terrain, including the Catskill Mountains and the Swiss Alps. Plaintiff claims to have gone over hundreds of jumps and drop-offs (sometimes referred to as "drops"), and has been taken to the hospital on at least two occasions for treatment after mountain biking incidents.

Around the time of the accident, Plaintiff regularly biked with four friends: Anthony Carubia, C.J. Bivona, Thomas Mueller and Anthony Coneski (collectively, the "Group"). Of the Group, Coneski and Bivona worked in bicycle shops. Plaintiff considers Coneski a mountain bike expert.

During the summer of 2001, before the accident, Plaintiff stated that, on an "average" ride, he and the Group would videotape themselves riding mountain bikes and watch each other "hit jumps." (DeRienzo Dep. at 118:12-119:2.)

In addition to mountain biking, the Group also engaged in other outdoor sports together, such as surfing, skateboarding and skiing. Plaintiff apparently had a discussion about ski-jumping over a roadway with Mueller,[4] which inspired Plaintiff's use of the name "roadgap" for a website he maintained, www.roadgap.com, which describes the Group's sports adventures.

Plaintiff participated in (and was apparently the first of the Group to try) "lake jumping," in which the goal is to ride one's bike off a jump into a lake. Mueller claims to have witnessed Plaintiff jumping a bike – not necessarily the Bike – into a lake at least 25-30 times.

B. The History of the Bike

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[4] Plaintiff clarifies that this stunt was never actually attempted, only discussed. (Pl. 56.1 at par. 50.)

The 1998 Trek Y5 model is a "full-suspension" mountain bike. Defendant claims the Y5 is also a "cross-country" mountain bike, (Def. 56.1 at par. 5), but Plaintiff claims it is not, (Pl. 56.1 at par. 5). Trek engineer Clint Kolda testified at his deposition that the Y5 was designed as a full-suspension bike that could be used for "hard" off-trail riding, but that taking a Y5 over a 5-foot drop would likely be considered a crash.[5] (Kolda Dep. at 11:12-15.)

One Jeremy Ball of Spokane, Washington was the original purchaser of the Bike and the person who sold the Bike to Plaintiff over the internet sometime in the fall of 1999.[6] Ball told Plaintiff the Bike was "a great bike," but he said that there were "cosmetic blemishes" on the frame.

Plaintiff purchased the Bike sight unseen. When the Bike was delivered to Plaintiff, it was disassembled and wrapped in bath towels. Plaintiff reassembled the Bike himself. Plaintiff noticed some marks on the down tube, "Just like normal, like wear, like scuffs, maybe like some ping marks from maybe rocks or something like that." (DeRienzo Dep. at 122:19-123:4.)

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[5] This seemingly important fact – and the related testimony of Mr. Kolda – was not referenced in Plaintiff's 56.1 Statement; rather Plaintiff only mentioned it on page 4 of his brief. With respect to jumping, Mr. Kolda stated that the Y5, "Reasonably . . . could probably take a small dropoff." (Id. at 12:8-18.) When asked how he arrived at that conclusion, Mr. Kolda stated, "There's always going to be uneven portions of the road. *Like a kid rides his bike off a curb. It's a dropoff*." (Id. at 12:20-25 (emphasis added).) When asked if he meant, "A small dropoff, you mean several inches, several feet?" Mr. Kolda replied, "I can't answer that. I don't know." (Id. at 13:2-6.) However, when asked whether he could "foresee that the consumer would utilize the Trek Y5 while off-trail, to jump heights of 4 or 5 feet," Mr. Kolda answered, "It was assumed that the bike would be ridden off-road. It was assumed that the bike would be ridden hard off-road. I don't know that anybody would anticipate somebody would take it off of a 5-foot jump and not consider that to be a crash type situation." (Id. at 44:16-45:1.) If Plaintiff establishes that Mr. Kolda was indeed employed as a design engineer by Trek during the period when the Y5 model bike was being manufactured, then Mr. Kolda would be testifying as a fact witness, not as an expert.

[6] Ball does not remember when he purchased the Bike. (Ball Dep. at 10:5-7.)

Prior to Plaintiff's purchase, Ball had modified the Bike, though to what extent is not clear. At some time prior to the accident, Ball replaced (or had someone replace for him[7]) the original front fork with a used "Rock Shox Triple Clamp" fork.[8] The parties agree that the Rock Shox fork is designed to handle a heavier load from the rider, including loads created by jumps and drop-offs. In fact, a Trek catalog (Pl. Exh. 18) includes a section entitled, "Off Road," listing the different Y model bikes (the Y5 among them) and their features, showing that the Rock Shox fork is available on certain models (but not the Y5).[9]

When Plaintiff received the Bike, it had pedal supports ("cranks") and handlebars that were not manufactured by Trek. In fact, Defendant contends that, at the time of the accident, nothing but the frame remained of the original Bike. (Def. 56.1 Statement at par. 3.) Plaintiff

[7] Ball cannot remember whether he replaced the fork himself or had someone do it for him, but that is irrelevant to this decision.

[8] The Rock Shox fork is sometimes referred to by the parties as a "Rock Shox Judy" fork. According to a 1998 Trek catalog, attached as Exh. 18 to the Affidavit of James Alexander Burke in Opposition to Motion to Dismiss, dated Jan. 21, 2004, there do appear to be several versions of Rock Shox forks, of which the Rock Shox Judy is one.

[9] Specifically, beside the picture of each model of bike, there is a list of the features that have been upgraded from one model to the next. The Y5, for example, includes a "Manitou Stylet 8 suspension fork" on its list of features upgraded from the Y3 model. The Y Glide model, in turn, lists the Rock Shox fork as one of the upgrades from the Y5 model, meaning (presumably) that the Y Glide model is superior to the Y5 because it comes with, among other features, a Rock Shox fork instead of the Y5's standard Manitou fork. Page two of the catalogue shows that the Y33 and Y11 models also come with versions of Rock Shox forks, which are listed as upgrades from the Y22 and Y5 models. There is nothing in the catalogue indicating that any type of Rock Shox fork is inappropriate for the Y5 model; the catalogue shows only that a Rock Shox fork is standard on some Y models but not the Y5 model.

disputes this but admits that at least the wheel rims, tires, brakes, gear system, pedals and handlebars had been replaced.[10] (Pl. 56.1 Statement at par. 83.)

Although Ball refused to testify (or did not remember anything) about his use of the Bike prior to selling it to Plaintiff, he described himself as an "aggressive" mountain biker. Ball has raced mountain bikes all over Washington, Idaho and Montana, and has described his typical course as being "rocky," with jumps measuring two to eight feet and drop-offs measuring three to twelve feet. Ball estimates that he has fallen about 1,000 times using various mountain bikes. Of those 1,000 incidents, he estimates that he flew over the handlebars 30-50% of the time. It is not clear how many of these incidents, if any, involved the Bike at issue in this case.

During the two years before the crash, Plaintiff rode the Bike at least every other day, and sometimes daily. He estimates that he put more than 1,000 miles on the Bike.

Plaintiff engaged in three different types of riding: "urban assault" riding, dirt jumping and mountain biking. While urban assault riding, Plaintiff stated that he and the Group would ride around at night through the streets of Newburgh and Poughkeepsie and "jump off ledges and stuff." (DeRienzo Dep. at 69:17-18.)

Coneski stated in his deposition that he thought Plaintiff enjoyed urban assault riding more than other types of riding. Coneski also stated that Plaintiff "really liked jumping off stuff" and that he witnessed Plaintiff performing more than 500 jumps and drops. Coneski does not indicate whether any of these 500 jumps and drops involved the Bike at issue here or whether some were made using other bikes. Coneski acknowledged that landing on concrete is "really

[10] While the Trek catalogue shows that certain standard components on various Trek bikes may be made by different companies, such as Shimano "cranks" and brakes, this fact is irrelevant in light of Plaintiff's admission that the listed parts were replaced.

harsh" on a bicycle frame and said that Plaintiff's urban assault riding was "a little rough."

Plaintiff did "dirt jumping" with the Bike, which, according to Coneski, "is where you go to a stop where there's two dirt jumps, where there's a lip and a landing and just do that all day or as long as you want. That's dirt jumping." (Coneski Dep. at 217:25-218:4.) Plaintiff and the Group jumped their bikes four or five times a week in an area where they built eleven dirt ramps. The tallest ramp was five feet high. Coneski testified that he only saw Plaintiff damage a bike one other time before the accident – "I seen him bend a wheel real bad in the front once" – but Coneski did not indicate whether Plaintiff was riding the subject Bike at the time. (Coneski Dep. at 234:16-235-24.)[11]

In addition to urban assault riding and dirt jumping, Plaintiff used the Bike for mountain biking or "off-road" riding. Plaintiff estimated that he took the Bike over approximately 200 jumps and drop-offs before the accident, with the highest being ten feet off the ground. Coneski stated in his deposition that in his (non-expert) opinion, Plaintiff's use of the Bike put the Bike close to, or possibly past, the point where the aluminum frame would be "stressed."

The day before the crash at issue in this case, Plaintiff was involved in an incident in which the front wheel of the Bike hit the ground at an angle of between 50 and 70 degrees, causing Plaintiff to go flying over the handlebars. Plaintiff claims not to have been injured in this incident.

C. The Owner's Manual and Warning Sticker

[11] Plaintiff bought the Bike from Ball in the fall of 1999. Coneski testified that he thinks the incident where Plaintiff bent a front wheel happened in the summer of 1999, which would mean Plaintiff could not have been riding the subject Bike at the time. (Coneski Dep. at 234:25-235-2; Def. 56.1 Statement at par. 24.)

The parties dispute almost everything about the Owner's Manual and warning stickers.

Each party submitted a different version of a Trek Owner's Manual with its moving papers. The version submitted by Defendant contains sterner, more prominent warnings about the dangers of various aspects of mountain biking than the version submitted by Plaintiff. It is not clear which version actually was issued with the Bike when Ball purchased it, and Plaintiff did not produce any Owner's Manual that was in his possession during discovery. If an Owner's Manual was issued to Ball when he first purchased the Bike, it is not part of the record.

Plaintiff's Exhibit 14 is a Trek "All-Terrain Bicycle Owner's Manual" that, according to an email from defense counsel (attached to the copy of the Owner's Manual in Pl. Exh. 14), "would have accompanied most 1998 Trek Y-5 bicycles when they were purchased new." This Owner's Manual is copyrighted 1997 by Trek and carries the notation, "Trek P/N 971475." I will refer to this as the "1997 Manual."

Defendant's Exhibit 3 is also a Trek "All-Terrain Bicycle Owner's Manual." It appears similar to Plaintiff's Exhibit 14. However, Defendant's version is copyrighted 1998 and carries the notation, "Trek # 990264." I will refer to this version as the "1998 Manual."[12]

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[12] Defendant's 56.1 Statement at par. 6 states, "Trek issued an Owner's Manual with the 1998 Trek Y5 that contained a number of safety instructions and warnings, including the following warning about potential frame damage from jumping," and then quotes warning text that I address more fully below. That text does not appear in the 1997 Manual, the version apparently sent by defense counsel to Plaintiff. Plaintiff states in par. 6 of its 56.1 Statement, "There is no citation by Defendant to any evidence except a 1998 Trek All-Terrain Bicycle Owners Manual. It is unclear whether Defendant is referring in general to the Y5 bike, or is referring to the subject Y5 bike. The original owner of the subject [bike] does not remember if he received an owner's manual, and the Plaintiff does not think he received an owner's manual . . . Defense counsel previously represented that a different Owners Manual 'would have accompanied most 1998 Trek Y-5 bicycles when they were new.'" It is not clear why defense counsel would have produced one version of the Owner's Manual to Plaintiff during discovery and then sent a different version with its motion papers.

The 1997 and 1998 Manuals contain substantially different warnings.

For example, page 2 of the 1998 Manual has a box at the bottom of the page that shows the word, "WARNING" in bold against a dark background, with a "!" symbol on a dark triangle. I will refer to the combination of "WARNING" with the "!" on the triangle, bold and highlighted, as the "Warning Sign." The Warning Sign is accompanied by the following text: "Read Chapter 1 now! It contains important safety information which you should read thoroughly before you ride your new bicycle." Page 3 shows the Warning Sign at the bottom of the page with the following text: "In this manual, the warning sign indicates there is the possibility of death or serious injury if an error is made in handling or operation." Page 5 shows the Warning Sign and states, "Before you ride your new bike, you should read this entire chapter. It includes safety, operational, and riding information that you should know before riding your new bicycle!" Page 6 shows the Warning Sign and states, "This is not a comprehensive maintenance program. Check the entire bicycle carefully. If you spot a problem, do not ride the bike until it has been corrected. If you are not certain if your bike has a problem, take your bike to your Trek dealer." Page 15 states, with the Warning Sign, "Never modify your frameset in any way, including sanding, drilling, filing, or by any other technique. Such modifications will void your warranty, may cause your frame to fail, and may contribute to loss of control resulting in personal injury." The same text appears on page 55 with the Warning Sign. In fact, the 1998 Manual contains the Warning Sign with various accompanying text on 23 of its 56 pages (occasional pages show two Warning Signs with different text).

By contrast, the 1997 Manual does not contain any Warning Sign logos, although it does contain some of the same text. Page 2 has text in a box that says, "IMPORTANT! – Read

Chapter 1 now! It contains important safety information which you should read thoroughly before you ride your new bicycle." This is the same text as the warning on page 2 of the 1998 Manual, but without the Warning Sign. As there are no Warning Sign logos in the 1997 Manual, there is no analogous warning to the one on page 3 of the 1998 Manual that the Warning Sign indicates risk of "death or serious injury if an error is made in handling or operation." On page 5 of the 1997 Manual, a text box states: "IMPORTANT! Before you ride your new bike, you should read this entire chapter. It includes safety, operational, and riding information that you should know before riding your new bicycle!" This is similar to the warning on page 5 of the 1998 Manual. Page 6 states, "IMPORTANT: This is not a comprehensive maintenance program. Check the entire bicycle carefully. If you spot a problem, do not ride the bike until it has been corrected. If you are not certain if your bike has a problem, take your bike to your Trek dealer." This is the same text that appears on page 6 of the 1998 Manual. Page 12 states, "WARNING: Never modify your frameset in any way, including sanding, drilling, filing, or by any other technique. Such modifications will void your warranty, may cause your frame to fail, and often contribute to a loss of control resulting in a personal injury." Page 48 contains a substantially similar warning.[13] The warnings on pages 12 and 48 of the 1997 Manual are similar to the warnings that appear on pages 15 and 55 of the 1998 Manual. In addition, page 22 of the 1997 Manual contains a text box that states, "CAUTION: Never ride any bicycle that is not operating properly." The Court could not find a similar warning in the 1998 Manual (other than the text in the warnings on page 6 of both Manuals). The 1997 Manual contains text boxes with the words,

[13] The warning on page 48 of the 1997 Manual merely omits the reference to the warranty: "WARNING: Never modify your frameset in any way, including sanding, drilling, filing, or by any other technique. Doing so may cause your frame to fail or in other ways contribute to a loss of control resulting in a personal injury."

"CAUTION," "WARNING" or "IMPORTANT" on 21 of its 52 pages.

The most important warning in the 1998 Manual – for purposes of this case – is found on page 12 and takes up approximately 1/3 of the page. It states (with the Warning Sign):

> Jumping your bicycle, performing bicycle stunts, severe off road riding, downhill riding, or any abnormal bike riding can be very dangerous. These activities increase the stress on your frame and components and can lead to premature or sudden failure of your bicycle frame or components. Such failure could cause a loss of control resulting in serious injury or death.
>
> Industry pictures and videos of these kinds of activities depict very experienced or professional riders. If you choose to jump your bicycle, use it for stunts, or use it in a severe offroad [sic] or downhill environment, carefully inspect your frame and components for signs of fatigue before and after each ride.
>
> Remember; it is much easier to have an accident resulting in serious personal injury in these situations even if your bicycle performs as intended. Use suitable protective gear, including a certified bicycle helmet.

The only "warning" about jumping in the 1997 Manual is at the very bottom of page 10, in regular text (with no text box, Warning Sign or other graphic) and takes up approximately 1/10 of the page. It states in full: "Avoid jumping. Bicycles are not made for jumping. Doing so may cause your frame to fail. Never ride your bicycle in such a manner as to propel your bicycle airborn [sic], including riding over steps and curbs." This "Avoid jumping" text is the last of five text segments on page 10, the other four being (in order, from top to bottom): "Wear a helmet," "Know and observe your local bicycle riding laws," "Use special care when off-road riding," and "Use good shifting techniques." On the opposite (facing) page, there is a text box with the word "CAUTION" and two segments (including bold text) about the dangers of riding at night and in wet conditions. On page 20, there is a list of the IMBA Rules of the Trail

In sum, the warnings on pages 2, 5, 6, 12 and 48 of the 1997 Manual are analogous to the

warnings on pages 2, 5, 6, 15 and 55 of the 1998 Manual, except that the warnings in the 1998 Manual are accompanied by Warning Signs and the ones in the 1997 Manual are not. The warning about the specific dangers of jumping is unique to the 1998 Manual, as is the warning that "death or serious injury" could result from errors in operating a bicycle. The free-standing warning against riding a bicycle that is not operating properly is unique to the 1997 Manual, as is the very brief and inconspicuous warning not to jump a bicycle. Interestingly, the 1998 Manual, which contains the more conspicuous and arguably more severe warning about jumping, does not state that a Trek bicycle should not be used for jumping. The 1997 Manual, by contrast, flatly (though inconspicuously and briefly) states that bicycle should not be used for jumping, but fails to state what the dangers of doing so would be.

Ball testified that he does not remember whether he ever got a Y5 Owner's Manual when he originally bought the Bike, and he does not remember whether he sent any literature with the Bike when he sold it to Plaintiff. (Ball Dep. at 50:12-18.) When asked if he received an Owner's Manual with the Bike when he bought it from Ball, Plaintiff stated, "I don't think so." (DeRienzo Dep. at 106:17-19.)

Defendant also claims in its 56.1 Statement, pars. 7 and 8, that the 1998 Y5 model came with a sticker on the frame, reading:

> WARNING! NEVER RIDE YOUR BICYCLE WITHOUT A HELMET. YOUR OWNER'S MANUAL CONTAINS CRITICAL SAFETY INFORMATION. READ YOUR OWNER'S MANUAL BEFORE YOU RIDE THIS BICYCLE. IF YOU DON'T HAVE AN OWNER'S MANUAL, SEE YOUR LOCAL DEALER.

Defendant included copies of the sticker as Def. Exhibit 4. However, the copies are not evidence in support of the assertion that the stickers were placed on this Bike in 1998, and Defendant's

56.1 Statement cites no testimony from anyone at Trek to the effect that stickers were affixed to any 1998 models of the Y5. Therefore, the assertion does not comply with Local Rule 56.1, which requires that, "Each statement ***by the movant or opponent pursuant to Rule 56.1(a) and (b), including each statement controverting any statement of material fact,*** must be followed by citation to evidence which would be admissible, set forth as required by Federal Rule of Civil Procedure 56(e)." (Emphasis in original.)[14]

D. The Accident

On July 4, 2001, Plaintiff was riding with Mueller, Carubia and Coneski in a wooded area on Cronomer Hill in Newburgh, New York. Carubia was videotaping the others going over jumps and drop-offs. Prior to the accident, Plaintiff had been riding for more than one hour. During that time, Plaintiff did between eight and ten drops.

At one point prior to the accident, the riders approached a drop from a large rock onto a ladder bridge. According to Coneski, Plaintiff contemplated the drop for about twenty minutes and then decided not to do it because, "It just freaked him out." (56.1 Statements at par. 95.)

The riders subsequently approached the area where the accident occurred, a drop-off of between five and eight feet created by a boulder approximately the size of a car sticking out of the side of Cronomer Hill. Defendant states, in par. 99 of its 56.1 Statement, without citation, that, "Trees and bushes flank the cliff on both sides." Plaintiff disputes this, but also provides no

[14] Of course, Plaintiff does not cite any evidence that such stickers were <u>not</u> affixed to the Bike, in support of the assertions in paragraphs 7 and 8 of <u>Plaintiff's</u> 56.1 Statement. Instead, all Plaintiff offers is Ball's testimony in response to the question about whether there was a sticker on the Bike when he bought it: "I don't believe – I don't remember." (Ball Dep. at 69:4-8.) If Defendant can prove that it was Trek's practice to put those warning stickers on all of the Y5 model bikes, then Ball's statement that he does not remember whether there were any on *his* Bike would not suffice to raise a genuine issue of fact.

citation to contrary evidence. Defendant cites the Expert Report of Gerald P. Bretting, P.E., for the assertions that the area leading up to the cliff is angled downward at 18 degrees, and that the landing area is angled downward at 30 degrees. (Def. 56.1 Statement at pars. 100-101.) Plaintiff disputes this, (pars. 100 and 101 of Pl. 56.1 Statement), citing only Mueller's testimony that the slope of the ground leading up to the cliff is "Maybe 10-15 degrees. Not a big slope," (Mueller Dep. at 242:3-7), and Coneski's testimony that the "take-off" area is "nice flat rock." (Coneski Dep. at 314:9-14.)[15]

Defendant paraphrases (with some errors) the testimony of Coneski regarding the landing area. (Def. 56.1 at par. 102.) Coneski's testimony about the landing area was that there are

> some rocks and roots, because it's not a pretty high drop. Four feet or whatever, it isn't that high. But you land on pretty choppy stuff. . . It's not real bad, but it's a little choppy. . . [The rocks are] pretty big, but they're in the ground. Just the tops are sticking up. And there's one root that comes right across.

(Coneski Dep. at 313:9-314:2.) According to Coneski, the "coolest part" of this drop is that the rider cannot see the landing area until his bike is already off the boulder. For this reason, the riders used twigs to indicate where the perfect landing spot would be. Specifically, Coneski stated:

> We'll take two twigs and make like a little, narrow spot. Because you can't tell from up top. When you're up top all you can see is the top, and the ground is gone. . . We brushed stuff away [from the landing area] with our feet. . . [T]here

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[15] Bretting visited the site of the accident and stated in his Report that the takeoff area rolled "to near vertical over approximately one foot." He stated that the vertical drop of the boulder is 5.2 feet and the approximate vertical drop of DeRienzo as he came off the boulder would have been 9.0 feet. He stated that the landing surface has an average down slope of 30˚. (Expert Report of Gerald P. Bretting, P.E., par. 11, Def. Exh. 2.) Plaintiffs experts' reports do not offer opinions on the angles at the site or estimate the height of the drop, and the Court cannot locate deposition testimony to that effect (and Plaintiff has not highlighted any).

> was like a groove that went right through the rocks, and we put twigs there and kind of lined it up.

(Coneski Dep. at 317:25-318:17.)[16]

Plaintiff was the first to go over the drop where the accident occurred. When Coneski was asked whether Plaintiff was "trying to go first to prove himself again, because he hadn't done the previous drop," Coneski replied, "Maybe. I don't know." (Coneski Dep. at 381:18-21.)[17] Plaintiff approached the takeoff area from about thirty feet away. Plaintiff believed he needed to approach the drop with "a good amount of speed" in order to avoid somersaulting. Coneski thought Plaintiff was approaching the drop too slowly and worried that Plaintiff would land the front wheel first. Coneski stated in his deposition that he cannot do drops as slowly as Plaintiff was approaching this drop because his "front end dies."

While in the air, Plaintiff believed the Bike was "fairly level" to the landing surface. And at some other point during the jump, the front end of the Bike tipped down towards the ground.

Plaintiff does not recall what part of the Bike hit the ground first. Mueller and Coneski viewed the accident (what they could see of it) from behind (i.e., up the hill from the boulder,

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[16] Defendant claims Coneski said they placed twigs "along the edge of the cliff to guide them toward the safe landing area." (Def. 56.1 at par. 105.) Plaintiff disputes this characterization, (Pl. 56.1 at par. 105), noting that Coneski testified that twigs were put on the landing area. Coneski's testimony is clear: they put twigs on the landing area, in the groove between the rocks – not, as Defendant claims, along the edge of the cliff.

[17] In a typical mischaracterization, Defendant claims that Coneski testified that he "thought Plaintiff was trying to prove himself after failing to do the previous drop." (Def. 56.1 Statement at par. 108.) Purported disputes over the witnesses' deposition testimony (like the ones noted in this section) were easily resolved by reviewing the subject testimony. Such "disputes" do not create a genuine issue of fact because the witnesses' statements are clear. The parties also failed to reference much of the relevant testimony in the record, which I have reviewed thoroughly, adding citations where necessary.

since DeRienzo was the first to go over the drop). Mueller stated that Plaintiff's "front end gradually dropped." Coneski stated that Plaintiff's "front wheel was pretty low" and "too low" while Plaintiff was in the air. Coneski also characterized Plaintiff's body position as he took off as "a little forward" but he also stated that "everything else was okay," and that Plaintiff did "everything right to try to fix" his position in the air. Specifically, Coneski said Plaintiff put his body "really, really far back trying to pull the front end up." (Coneski Dep. 384:9-21.)

Plaintiff thinks that "the bike broke like almost exactly when I somehow touched the ground." (DeRienzo Dep. 176:4-6.) He does not know if any part of the Bike hit a rock as he landed. (Id. at 175:17-24.) Coneski did not see the frame break, but he stated that he thought the frame broke when Plaintiff hit the ground on landing. (56.1 Statements at par. 125.) Mueller stated that he saw Plaintiff land the Bike front wheel first, but the Court cannot locate any testimony about whether Mueller saw the frame break.

Plaintiff stated that he "first realized the bike had broke [sic] when I was sitting there and my face felt like it was on fire and my friend Thomas [Mueller] was like, 'Don't move.' He is like, 'Your bike just broke.'" (DeRienzo Dep. 176:17-21.) Plaintiff realized he had gone over the handlebars when he woke up, but he didn't remember actually going over. (Id. at 176:25-177:16.)

Plaintiff testified that, had the frame not broken, "I am absolutely positive I would have landed successfully." (DeRienzo Dep. at 177:6-.7.) Coneski stated that he had "seen people land front wheel like that and have no problem. So that's – I don't know if he crashed because of the frame or if it really was totally his fault." (Coneski Dep. at 393:17-21.)

II. Summary Judgment Standard

A party is entitled to summary judgment when there is no "genuine issue of material fact," and the undisputed facts warrant judgment for the moving party as a matter of law. Fed. R. Civ. P. 56(c); Anderson v. Liberty Lobby, Inc., 477 U.S. 242 (1986). In addressing a motion for summary judgment, "the court must view the evidence in the light most favorable to the party against whom summary judgment is sought and must draw all reasonable inferences in [its] favor." Matsushita Elec. Indus. Co. Ltd. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986).

Whether any disputed issue of fact exists is for the Court to determine. Balderman v. United States Veterans Admin., 870 F.2d 57, 60 (2d Cir. 1989). The moving party has the initial burden of demonstrating the absence of a disputed issue of material fact. Celotex v. Catrett, 477 U.S. 317, 323 (1986). Once such a showing has been made, the non-moving party must present "specific facts showing that there is a genuine issue for trial." Fed. R. Civ. P. 56(e). The party opposing summary judgment "may not rely on conclusory allegations or unsubstantiated speculation." Scotto v. Almenas, 143 F.3d 105, 114 (2d Cir. 1998). Moreover, not every disputed factual issue is material in light of the substantive law that governs the case. "Only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude summary judgment." Anderson, 477 U.S. at 248.

III. Discussion

The key to understanding this case is as follows: Plaintiff alleges that he performed the jump in a manner that would have resulted in a successful landing – like all the landings before it

– had the Bike frame not failed. Plaintiff further argues that Defendant knew people were using the Y5 model for jumping but that it was not designed or reasonably fit for that use, and that Defendant failed to adequately warn of this danger. Defendant argues, to the contrary, that Plaintiff would have fallen on this occasion even if the frame had not failed, because of his poor position in the air, and that it was Plaintiff's history of misusing the Bike – and not a defect – that made it susceptible to failure on this particular occasion. Defendant implies that the failed jump caused the frame to break, and not the other way around. Defendant also argues that it did not market the Y5 model for jumping, that it did warn of the dangers of jumping a Y5 model bike, and that Plaintiff's failure to read any such warnings is fatal to his claims. Most important, Defendant asserts that Plaintiff has not adduced evidence sufficient to raise a genuine issue of material fact concerning what caused the accident. As discussed below, I disagree.

Each of the challenged claims – manufacturing defect, failure to warn and breach of warranty – requires proof that the accident was caused by a failure of the Bike's frame. See, e.g., Voss v. Black & Decker Mfg. Co., 59 N.Y.2d 102, 106, 463 N.Y.S.2d 398 (1983); Gilks v. Olay Co., Inc., 30 F. Supp. 2d 438, 443 (S.D.N.Y. 1998). Since there are scientific and technical issues involved in this determination, expert proof is required. See, e.g., Tiner v. General Motors Corp., 909 F. Supp. 112, 117 (N.D.N.Y. 1995) (citing Food Pageant, Inc. v. Consol. Edison Co., 54 N.Y.2d 167, 445 N.Y.S.2d 60, 429 N.E.2d 738 (1981)). Thus, if plaintiff cannot show that the failure of the Bike frame caused the accident (an assertion that requires the support of admissible expert testimony), the case is over, under any theory. See, e.g., Clark v. Helene Curtis, Inc., 293 A.D.2d 701, 701-02, 742 N.Y.S.2d 325, 326-27 (2d Dep't 2002) (granting summary judgment where defendant "established its prima facie entitlement to summary judgment by demonstrating

that there was no causal link between its product and plaintiff's injuries and plaintiff's expert's report was "speculative and conclusory" and "devoid of any reference to a foundational scientific basis").

Since no one who was present at the time and place of the accident has testified that he observed the frame break apart, no one who was there offers any evidence about causation, and Plaintiff does not argue otherwise. Rather, Plaintiff offers the testimony of two experts that, taken together, purportedly add up to a hypothesis that the failure of the frame caused the accident.

As discussed below, I find that the opinion of Plaintiff's metallurgical expert, Harold W. Paxton, Ph.D. – that the frame failed because of a defect – gives rise to the reasonable inference that the frame failure caused Plaintiff's accident. Thus, in order to address the most important question first – causation – I will evaluate Paxton's qualifications and methodology first. Because Paxton opines on the existence of a defect, I address the sufficiency of Plaintiff's strict products liability manufacturing defect proof, with respect to summary judgment, at the same time.

Plaintiff's second expert is John S. Allen, an electrical engineer with extensive experience in the areas of cycling, cycling safety, and trends in cycling. While Allen offers an opinion that the failure of the Bike frame caused Plaintiff's accident, for the reasons discussed below, I find that he is not qualified to give such testimony. Allen's Report also addresses the questions of whether Trek marketed the Y5 for jumping, and whether Trek adequately warned of the dangers of using a Y5 for jumping, areas in which Allen is qualified to testify. I address the

sufficiency of Plaintiff's proof for his failure to warn and breach of warranty claims when I evaluate Allen's qualifications and methodology.

A. Evaluation of Experts Generally

An evaluation of expert testimony begins with Federal Rule Evidence 702, which states:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Rule 104(a) states in part that, "Preliminary questions concerning the qualification of a person to be a witness. . . or the admissibility of evidence shall be determined by the court." Historically, expert scientific testimony was inadmissible unless it was derived from "generally accepted" scientific techniques. See Frye v. United States, 54 App. D.C. 46, 47, 293 F. 1013, 1014 (1923). Rejecting the Frye standard as too restrictive, but reasoning that Rule 702 "clearly contemplates some degree of regulation of the subjects and theories about which an expert may testify," the United States Supreme Court articulated a new standard in Daubert v. Merrell Dow Pharmaceuticals, Inc., a toxic tort case involving the question of whether the prescription drug Bendectin caused birth defects. 509 U.S. 579, 589-90, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993). Under Daubert, a trial court "[f]aced with a proffer of expert scientific testimony" must determine, pursuant to Rule 104(a),

> whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.

Id. at 592-93. Thus, the testimony "must be supported by appropriate validation" and must have "a valid scientific connection to the pertinent inquiry," but it does not necessarily have to be "generally accepted." Id. at 590. Simply put, the testimony must be scientifically valid and relevant to the case at hand. See, e.g., Daubert v. Merrell Dow Pharmaceuticals, Inc., 43 F.3d 1311, 1315-16 (9th Cir. 1995) ("Daubert II").

Two key factors in performing a Daubert analysis are whether the scientific technique can be tested, and whether it has been subjected to peer review and publication. Daubert, 509 at 580. Two other factors bearing on the inquiry are "the known or potential rate of error" and the "existence and maintenance of standards controlling the technique's operation." Id. at 594. Referring to Frye, the Daubert Court stated, "A 'reliability assessment does not require, although it does permit, explicit identification of a relevant scientific community and an express determination of a particular degree of acceptance within the community." Id. Finally, the Daubert Court noted that the standard under Rule 702 is a flexible one, focused "solely on principles and methodology, not on the conclusions they generate." Id. at 595; see also Amorgianos v. Nat'l R.R. Passenger Corp., 303 F.3d 256, 265 (2d Cir. 2002) (cited in Wantanabe Realty Corp. v. City of New York, No. 01-Civ.-10137 (LAK), 2004 WL 188088 at *2 (S.D.N.Y. Feb. 2, 2004) (noting that "a district court should consider the indicia of reliability, including, but not limited to, (1) whether the testimony is grounded in sufficient facts, (2) whether the underlying methodology is reliable, and (3) whether the witness has applied the methodology reliably to the facts").

The Supreme Court clarified Daubert in two subsequent cases, General Electric Co. v. Joiner, 522 U.S. 136 (1997), also a toxic tort case, and Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137 (1999), a products liability case. In Kumho Tire, a car's tire blew out, resulting in an accident that killed one passenger and injured others. Plaintiffs sued the manufacturer, alleging that the tire was defective. Plaintiff relied on the testimony of an engineer who had written a report based on "visual and tactile inspection" of the blown tire. Id. at 155. The trial court applied the Daubert factors listed above and found that the engineer's report lacked sufficient indicia of reliability. Id. at 145. The Eleventh Circuit reversed, holding that Daubert did not apply to non-scientific expert opinions. The Supreme Court reversed the Eleventh Circuit, finding (i) that one or more of the four Daubert factors may be applied to experience-based expert reports, and (ii) that the trial court's "gatekeeping" function created by Daubert applies to *all* expert testimony, not just scientific expert testimony. Id. at 147-51. The Court stated that the object of Rule 702 "is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." Id. at 152.

Noting that "there are many different kinds of experts, and many different kinds of expertise," the Kumho Tire Court honed the Daubert inquiry for experience-based expert testimony to include examination of how often an experience-based methodology has produced erroneous results and whether such a method or preparation is generally accepted in the relevant community. 526 U.S. at 151.

The proponent of expert testimony bears the burden of proving the admissibility of that testimony by a preponderance of the evidence. See, e.g., Baker v. Urban Outfitters, Inc., 254 F. Supp. 2d 346, 353 (S.D.N.Y. 2003).

Because Plaintiff has supplied the Expert Reports, testimony, background and professional associations of Paxton and Allen, I find that further submissions by the parties would not add to my analysis. Accordingly, I conduct the Daubert hearing on the papers.[18] See, e.g., Wantanabe, *supra*, 2004 WL 188088 at *1 n.1 (finding witness's trial testimony in the form of a deposition taken *de bene esse*, an earlier deposition and the expert's written report provided sufficient information for the court to rule on the admissibility of that expert's testimony); Anderson v. Hedstrom Corp., 76 F. Supp. 2d 422, 436-37 (S.D.N.Y. 1999) (addressing an issue fully briefed by the parties where the court had no reason to believe any new information would be presented in the future); see also Greenwood v. Koven, 880 F. Supp. 186, 191-92 (S.D.N.Y. 1995) (concluding that it would be wasteful not to decide an issue that the parties had had a full opportunity to brief).

B. Harold W. Paxton (Manufacturing Defect, Causation)

Plaintiff offers the opinion of Harold W. Paxton, Ph.D, that the Bike frame failed due to a defect – a fatigue crack that propagated through the frame's down tube, caused by excess weld metal that was deposited on the interior of the tube at the weld cite during the manufacturing process. (Report of Harold W. Paxton, Ph.D., Pl. Exh. B, at 10.)

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[18] Plaintiff consented to a Daubert hearing in its January 23, 2004 letter to the Court, although I note consent is not necessary.

1. Paxton's Qualifications, Methodology and Conclusions

Harold W. Paxton, Ph.D., is the U.S. Steel University Professor (Emeritus) of Metallurgy[19] and Materials Science at Carnegie Mellon University. Paxton is a Fellow of the American Association for the Advancement of Science, the American Society for Metals, the American Society for Metals and the Mining, Metallurgical and Materials Society of AIME (TMS), as well as a member of the National Academy of Engineering and the Directors of Industrial Research. A consultant to industry and author of many technical papers, primarily in the field of physical metallurgy, Paxton has been a guest lecturer around the world and has received multiple international honors in the field of metallurgy.[20] (See Pl. Exhs. 2, A.)

Paxton's Report, dated June 20, 2003, includes the following information about his methodology and testing of Plaintiff's Bike:

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[19] According to Webster's II New Riverside University Dictionary, "Metallurgy" is defined as, "1. The science or procedures of extracting metals from their ores, of purifying metals, and of creating useful items from metals. 2. Knowledge and study of metals and their properties in bulk and at the atomic level." Neither party supplied a definition.

[20] Paxton received his Bachelor of Science and Master of Science degrees in 1947 and 1948 from the University of Manchester and his Ph.D. in 1952 from the University of Birmingham. He joined Carnegie Mellon in 1953 and in 1966 became the Head of the Department of Metallurgy and Materials Science and Director of the Metals Research Laboratory. He was Visiting Professor of Metallurgy and Materials Science at Imperial College, London, in 1962-63 and at the Massachusetts Institute of Technology in 1970 and served two years as the first Director of the Division of Materials Research, National Science Foundation, in 1971-73. He is Past Chairman of the General Research Committee of the American Iron and Steel Institute and in 1982 was President of the American Institute of Mining, Metallurgical and Petroleum Engineers. Returning to Carnegie Mellon in 1986, Paxton taught in the Materials Science and Engineering department, ran a Master's program in Manufacturing Engineering, and did research on international policy issues in the steel industry. (See Pl. Exhs. 2, A.)

The Bike was delivered to him on January 4, 2002 and was in his uninterrupted possession until December 17, 2002. Shortly after receipt, he carried out a preliminary non-destructive examination, involving inspection of the fracture site at low magnification, and photographic recording of selected areas. This inspection revealed that the fracture showed three parts. There was an apparent crack at the edge of the weld zone (15 mm) at the topmost point of the tube and immediately contiguous to the weld with no smooth curvature where the weld met the tube. Well-defined "shear lips" were visible roughly parallel to the sides of the weld but separated from it. Finally, there was a tear through the remainder of the frame tube, which allowed complete separation of the Bike into two pieces held together only by cables. (Paxton Rep. at 2.)

These preliminary observations required destructive evaluation for confirmation, leading to the development of a testing protocol agreed upon with the defense team. (The protocol is attached as Appendix A to Paxton's Report.) According to the Report (p. 3), a metallurgical expert for Defendant, David Williams, and defense counsel agreed on a protocol to be carried out at MATCO Associates.[21] Following the protocol, the cylindrical section attached to the upper frame member was removed from the post that connects the front fork to the handlebars, recorded at each stage photographically by the defense (and the photographs were provided to Paxton.) The other side of the fracture, the upper frame member, was significantly deformed at

[21] Neither party describes what MATCO Associates is, however, Defendant has not argued that this was an improper venue for the tests, so I will not address it. It also appears that it was MATCO technicians who actually performed some or all of the actual tests, but that these technicians followed the protocol agreed upon by Paxton and Williams and counsel for both parties.

both ends of the major axis of the elliptical tube frame during the crash, and was thus set aside to provide material for chemical analysis and mechanical testing.

Optical microscopy (not defined in the Report, but evidently, from the text of the analysis, a visual inspection of the fracture site with magnification) was also performed at MATCO. The Report includes photographs and illustrations of this procedure. Paxton concluded that the "grain size" was "larger than in the bulk," and that "when Trek welded the subject frame enough heat was applied locally for a longer time than normal from an excess of weld metal such that the grain size was increased." (Report p. 6.)

He also concluded that, "Virtually all of the hardness measurements" near a tested weld site were below those expected for the type of aluminum used in this frame (6061 aluminum) at that weld juncture. (Id.)[22]

Based on these results, Paxton states that he and the defense reached a decision to perform destructive testing on the actual fracture to learn more. (Report at p. 8.) The procedure is described as follows:

> Figure 12 shows the attachment of the "down tube" to the "head tube". Previous examination was on the other (mating) half of the fracture, and on Weld II. A and B are areas of excess weld metal which had penetrated during assembly. A is adjacent to the fracture and is shown more clearly in Figure 13. B, shown also in Figure 14, was at the bottom of the attachment and was not examined further.
>
> The lines 1, 2 and 3 were where cuts were made to enable examination. The cut along line 1 roughly parallel to the fatigue fracture (Figures 15 and 16) served principally to enable cuts to be made along lines 2 and 3. [Figures 12-17 are photographs of the fracture site taken from various angles, and showing where lines had been drawn on the actual metal to indicate where the cuts would be made to analyze the metal around the fracture.]

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[22] Paxton subsequently abandoned his conclusion about the hardness of the aluminum and the significance of the larger grain size. See discussion, *supra* pp. 30-31.

> The cut along line 3 is shown in Figure 17. The sample was polished, examined in the unetched state and then etched in modified Poulton's reagent prior to photography. Part of the head tube was discarded for convenience prior to mounting.
>
> A view of the cut along line 2 is shown in Figure 18. The smaller piece was used for metallographic examination. The excess weld metal (A) is clearly visible. At a higher magnification, one may also see an imperfect joint between excess weld metal A and the down tube, which in effect serves as a crack which propogates into the weld metal. . .
>
> Cut 2 deliberately did not pass through the center of A, and thus a further grinding of some 1 mm. was carried out, with further metallography to allow some 3-D appreciation to be obtained. . .

(Id.) Based on these tests, Paxton reached the following conclusions:

> The bike failed by a classical fatigue crack which propagated through the down tube until the static load could not be supported and the tube tore.
>
> Both [of the welds that were examined] showed that excess metal deposited on the interior during the welding process caused a variety of cracks. In particular, we note that the areas near the fracture show several types of cracks or tears created by uncontrolled welding in the manufacturing process, any of which could have propagated, but were pre-empted by the crack which actually did propagate to failure. The relatively low hardness, corresponding to lower strength, allowed fatigue to occur more readily.
>
> I do not mean to imply that all TREK bikes would suffer from the inadequacies of the DeRienzo model, but this particular machine did not receive the manufacturing quality which is expected by following TREK's prescribed processes.
>
> In my view, with a reasonable degree of scientific certainty, the presence of excess weld metal which could not be detected by the TREK standard external inspection was a substantial factor in causing the fatigue crack.

(Report p. 10.)

One of Defendant's overarching criticisms of Paxton is that he has done no research on the subject of aluminum since the mid-1960's, has never done analysis of aluminum welds or

fatigue cracks, has never observed testing of aluminum welds, and has only a "general understanding" of the authoritative research that has been done on aluminum weld integrity. (Id.) According to Defendant, Paxton does not have "the faintest idea" about the mountain biking industry and has never analyzed a bicycle frame failure. (Id. at 12.)

While it appears that most of Paxton's research has focused on steel, I find that his extensive education and teaching background in the field of metallurgy generally, as well as his broad and prestigious professional associations, indicate that he is qualified to undertake analysis of an aluminum bicycle frame like the one in this case. He is a distinguished professor of metallurgy with many years' experience, multiple awards and many publications in the field. The fact that Paxton has more experience analyzing steel than aluminum goes to the weight of his testimony. See, e.g., Byrne v. Gracious Living Indust., Inc., No. 01-Civ-10153 (LAK), 2003 WL 446474 at *1 and n.1 (S.D.N.Y. Feb. 25, 2003).

Paxton's testimony is also offered for a proper purpose. He offers a scientific opinion that may help the trier of fact determine an ultimate issue in the case: namely, what caused the Bike's frame to fail. See, e.g., LinkCo, Inc. v. Fujitsu Ltd., No. 00-Civ-7242 (SAS), 2002 WL 1585551 at *1 (S.D.N.Y. July 16, 2002) (noting that expert testimony is admissible when it helps a jury understand facts that are "outside common understanding"). Paxton's opinions address only the question of why the Bike frame failed (and not whether the frame failure caused Plaintiff to fall), but that is no bar to admissibility. Moreover, a reasonable inference can be drawn that a defective frame would have caused the accident. See, e.g., Jarvis v. Ford Motor Co., 283 F.3d 33, 45-46 and n.6 (2d Cir. 2002) (finding that existence of a "causative defect" can be inferred

from circumstantial evidence) (quoting Hunter v. Ford. Motor Co., 37 A.D.2d 335, 325 N.Y.S.2d 469, 471 (3d Dep't 1991)).

Defendant's specific criticisms of Paxton's Report begin with the comment that Paxton should have investigated the history of this particular Bike, something he concedes he knows nothing about. (Def. Mem. at 12.) According to Defendant, in spite of this lack of knowledge, Paxton assumed, for purposes of his analysis, that the Bike had a "moderate" crash history, even though he concedes that a drop of eight feet (like those regularly performed by Plaintiff) constitutes a "major episode" with respect to the frame. (Id.) Defendant further contends that Paxton should have visited the site of the accident but did not. (Id.)

I do not find these arguments persuasive on the issue of the admissibility of Paxton's Report, because Paxton's conclusion that the Bike had defective welds is not necessarily undermined by the Bike's history or the scene of the accident. If anything, these factors go to the weight of Paxton's testimony, not its admissibility. Further, as noted above, Plaintiff's burden at this stage is to show that a defect in the product was a "substantial factor" in causing the accident, not that it was the "sole" cause. Even if environmental factors or the history of the Bike were found to have contributed to the failure, those elements would not automatically completely preclude a welding defect from having substantially contributed to the failure. Thus, they are not a basis for rejecting Paxton's testimony.

Defendant quotes Paxton's testimony that a proper failure analysis would include a "quantitative assessment of the forces and loads" created by the failure event, and his concession that he never calculated such loads. (Id. at 13.) Again, I do not find this criticism to be fatal to

Paxton's testimony because his conclusion that the product was defective was based on empirical testing of the Bike itself, not on speculative calculations.[23]

Defendant claims Paxton changed his theories about the frame failure repeatedly until about two months before his report was due. (Def. Mem. at 15.) Defendant states that it confronted Paxton at his deposition with errors in his analysis of the hardness of the aluminum, and that Paxton conceded that the aluminum was within Trek's hardness specifications.[24] (Def. Mem. at 13-14.) Clearly, Paxton has abandoned (since issuing his Report) his theory that the aluminum in the frame was not sufficiently hard. If he should testify to a defect in the hardness at trial, Defendant is, of course, free to cross-examine him.

Paxton also conceded at his deposition that the enlarged grains he found were not near the fracture site. (Def. Mem. 14; Paxton Dep. at 196:22-197:1).[25] The grain size theory does not seem to be relevant to the conclusions about the weld defect, however, and so does not provide a

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[23] As above, I note that a jury could decide to give Paxton's report less weight on the basis that he had not calculated the loads.

[24] Defendant points out that Paxton said he was "embarrassed" by mistakes made by his technician, who incorrectly machined a sample, broke it in an unintended manner, took thickness measurements from the wrong part of the sample, and miscalculated the tensile strength of the sample. (Def. Mem. at 13.) Defendant also points out that Paxton admitted he failed to follow the standards of the American Society for Testing Materials (ASTM), that he misinterpreted the results because he used the wrong conversion chart, and then misread that chart. (Id. at 14.) Paxton's deposition transcript confirms these claims.

[25] Defendant also criticizes Paxton's conclusions about the grain size because Paxton admitted he compared a 100x magnification photo of the allegedly enlarged grains to 50x and 200x magnification photos of what he contended to be normal size grains, conceding that it would be more reasonable to compare photos at the same magnification.

basis for precluding his testimony. Defendant will be free to cross-examine Paxton on any of his abandoned theories if they come up at trial.[26]

Attacking Paxton's final conclusion that weld deposits on the interior of the aluminum frame tubing caused microscopic cracks that were a substantial factor in the frame failure, Defendant claims: (i) Paxton identified three types of cracks but did not attribute the final failure to any one of them; (ii) Paxton testified that it is "not honest" to attribute the frame failure to any one of the alleged manufacturing defects, although they had "real potential" to cause the failure; (iii) Paxton stated there is no such thing as a "perfect" weld, and that all welds have microscopic imperfections, which do "not necessarily" render a frame defective. Defendant also argues that Paxton admitted aluminum will always fail if it is loaded with enough force – defect or no defect – and that a hypothetical perfect frame would fail first in the exact spot where this bike failed if subjected to a strong enough force. (Id.)

In response, Plaintiff quotes Paxton's Affidavit, dated January 21, 2004 (Pl. Exh. 2), specifically, portions thereof that criticize the conclusions of Defendant's expert, Gerald P. Bretting, P.E. (professional engineer):[27]

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[26] Defendant notes that Paxton abandoned another theory at his deposition, that the Bike frame had failed in mid-air, a theory he admitted was based on nothing but speculation. (Def. Mem. at 14.)

[27] Neither party quoted Bretting's Affidavit at any length in their briefs. Defendant quoted Paxton in its critique of Paxton's Report, but it did not quote Bretting. Bretting's Affidavit is attached as Exh. 2 to Def. Notice of Motion. In it, Bretting concludes (among other things) that there were fatigue fractures that existed prior to the ultimate failure, (p. 7), that were created by repeated stresses above the endurance limit of the material used (p. 9); the front wheel was in usable condition after the accident (id.); "pocketing the front wheel on a landing at 50 - 55° above the horizontal will result in pitch-over occurring at horizontal decelerations greater than 0.15 g's" (p. 10); fatigue fractures would have been readily visible (p. 11); the Bike was "not defective in either design or manufacture and was safe for its intended and foreseeable use" (p.

> 3. Briefly summarizing the conclusions stated in the report, my opinion is that the bicycle frame failed due to a fatigue crack which propagated through the "down tube" until the static load could not be supported and the tube tore. In the course of the manufacturing process, excess weld metal was deposited on the interior of the tube at the weld of the "down tube" and the "head tube". In the area of the fracture, there were several types of cracks or tears created by uncontrolled welding in the manufacturing process. While it is not possible to identify the specific crack that actually propagated, any one of these cracks could have propagated through the tube to cause the failure. Furthermore, it is probable that one of these cracks actually did propagate to failure, because it is far, far easier for a pre-existing crack to propagate than for a new crack to be created by stresses bending a surface with no pre-existing crack.
>
> 4. I have reviewed the affidavit submitted by defense expert Gerald P. Bretting in support of the defendant's motion for summary judgment. Mr. Bretting agrees that fatigue cracks existed in the area of the "head tube" - "down tube" joint . . . Mr. Bretting provides no support for his assertion that these fatigue cracks were created by stresses resulting from prior hard use of the bicycle. . . His scenario is in fact extremely unlikely because, as stated above, it would have been far easier for one of the pre-existing cracks created during the manufacturing process to propagate than for a new crack to be created by stresses bending a surface with no pre-existing crack.

(Pl. Mem. at 23 (quoting Paxton Aff.))

Defendant's criticisms of Plaintiff's abandoned theories are much stronger than its criticism of his final opinion that the frame was defective because of excess weld metal deposits. First, Paxton did attribute the final failure to one of the cracks (without specifying which one), noting that it was "probable" and would have been "far easier" for one of the identified fatigue

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12); the Bike "is not a bicycle that was designed for free-riding" (p. 12); the existence of fatigue cracks had no effect on the causation of this crash (id.); the accident created an "extreme overload condition" that would have approached "the yield limit of a new frame" (id.); Plaintiff was in the process of pitching over the handlebars in this accident "regardless of the frame failure" (p. 13); Plaintiff did not orient his bicycle correctly during the jump, and the failure of the frame "did not affect the crash kinematics of the rider" (p. 14). The admissibility of Bretting's opinions is not at issue until Plaintiff has established that he can withstand this motion for summary judgment, but Plaintiff also has not challenged Bretting's qualifications. Bretting appears more than qualified, as a professional engineer with extensive education and training, to advance the opinions above.

cracks to propagate than for a new crack to form. Second, the fact that Paxton conceded there is no such thing as a "perfect" weld does not, in and of itself, mean that this particular defective weld had the same inconsequential defects as some other welds. Clearly, Paxton opined that this weld was more defective. Defendant has failed to point out any actual error of fact or flaw in reasoning in Paxton's weld conclusions, thus these criticisms are merely "forensic quibbles" that would go to the weight, and not the admissibility, of Paxton's opinions. Byrne, *supra*, 2003 WL 446474 at *1 n.1.

In general, I find that Paxton's methodology carries sufficient indicia of scientific reliability to warrant submission to a jury under Daubert and its progeny and the Federal Rules of Evidence. Most significant in this regard is Paxton's uncontroverted assertion that Defendant's own metallurgical expert and defense counsel agreed upon the protocols by which Paxton analyzed the Bike's frame. This alone indicates to the Court that Defendant's critique of Paxton's methodology does not render the testimony beyond the scientific pale.

In addition, Paxton's described procedures tend to indicate to the Court that he carried out a thorough and scientific analysis of the frame, and that these tests formed the basis for his conclusion that fatigue cracks caused by excess weld material were a substantial factor in causing the frame to fail. See, e.g., Byrne, *supra*, 2003 WL 446474 at *1 (finding sufficient indicia of reliability in expert's background and the foundation for his opinions, despite a lack of empirical tests on the product that failed and no articulated hypothesis about the cause of failure) (internal citation omitted); see also Bruno v. Toyotomi U.S.A., Inc., 203 F.R.D. 77, 79 n.2 (N.D.N.Y. 2001) (noting that expert was qualified because he held a Ph.D. in the field, had 30-plus years of experience, had published over 100 technical papers and advised in numerous court

cases). Paxton observed the actual Bike, analyzed the welds joining the head tube and down tube where the Bike failed, subjected the fracture site to magnification, and performed destructive chemical analyses. And while Defendant has pointed out several errors in Paxton's abandoned theories, it has not discredited Paxton's methods or conclusions regarding the allegedly defective weld.

I also note that Paxton's qualifications, methodology and final conclusions do not contain the flaws that ordinarily cause an expert's opinion to be excluded. See, e.g., In re Rezulin Products Liability Litigation, 369 F. Supp. 2d 398, 411-25 (S.D.N.Y. 2005) (excluding expert testimony where expert relied on studies that were only tangentially relevant and ignored relevant, contradictory studies); Davidov v. Louisville Ladder Group, LLC, No. 02-Civ-6652, 2005 WL 486734 at *2 (S.D.N.Y. Mar. 1, 2005) (excluding expert report that was inconsistent with facts of case); Housing Works, Inc. v. Turner, 362 F. Supp. 2d 434, 447-48 (S.D.N.Y. 2005) (excluding illogical expert report that failed to address facts that would, by common sense, dictate different conclusions from those reached by the expert); Macaluso v. Herman Miller, Inc., No. 01-Civ-11496 (JGK), 2005 WL 563169 at *6 (S.D.N.Y. Mar. 10, 2005) (excluding expert testimony where expert did not examine actual item in question and his analysis was based on incorrect factual assumptions that rendered all of his subsequent conclusions "purely speculative"); Mink Mart, Inc. v. Reliance Ins. Co., 65 F. Supp. 2d 176, 181 (S.D.N.Y. 1999), aff'd, No. 99-Civ.9211, 12 Fed. Appx. 23 (2d Cir. May 30, 2000) (excluding expert report where it was based on speculation and not evidence that product in question malfunctioned).

Having determined that Paxton may testify as an expert, I turn to the issue of whether Plaintiff has met his burden to withstand summary judgment on the manufacturing defect claim. I find that he has.

2. Elements of Manufacturing Defect

Under New York law, a "manufacturer who places a defective product on the market that causes injury may be liable for the ensuing injuries. A product may be defective when it contains a manufacturing flaw." Liriano v. Hobart Corp., 92 N.Y.2d 232, 237, 677 N.Y.S.2d 764 (1998) ("Liriano I") (internal citation omitted). A manufacturing defect is a flaw that results from the manufacturer's plans not being carried out correctly, usually caused by an error during the product's manufacture or assembly. See Van Deusen v. Norton Co., 204 A.D.2d 867, 868-69, 612 N.Y.S.2d 464 (3d Dep't 1994); Opera v. Hyva, Inc., 86 A.D.2d 373, 376-77, 450 N.Y.S.2d 615 (4th Dep't 1982). The crux of a strict liability manufacturing defect claim is the product's failure to perform as expected due to an error in the manufacturing process that resulted in a defect.[28] Rainbow v. Albert Elia Bldg. Co., 79 A.D.2d 287, 294, 436 N.Y.S.2d 480 (4th Dep't 1981); aff'd, 56 N.Y.2d 550, 449 N.Y.S.2d 967, 434 N.E.2d 1345 (1982).

To recover for damages for a manufacturing defect (to recover under *any* strict liability theory, including failure to warn, addressed later in this opinion), a plaintiff must show that the defect was a "substantial factor" in causing his injuries. Bruno, *supra*, 203 F.R.D. at 78-79; Donald v. Shinn Fu Co. of Am., No. 99-Civ-6397 (ARR), 2002 WL 32068351 at *6 (E.D.N.Y. Sept. 4, 2002) (noting that plaintiff is required to show defect was the "proximate cause" of the

[28] Negligence is not an element in a manufacturing defect case; where a manufacturing defect causes injury, recovery may be had regardless of whether the manufacturer used reasonable care. Caprara v. Chrysler Corp., 52 N.Y.2d 114, 123-24, 436 N.Y.S.2d 251 (1981).

injury) (citing Colon v. Bic USA, Inc., 199 F. Supp. 2d 53, 84 (S.D.N.Y. 2001)). A plaintiff asserting a strict liability claim must also show that (i) the product is not reasonably safe as marketed; (ii) the product was used for a normal purpose; (iii) that the plaintiff, by the exercise of reasonable care would not have both discovered the defect and apprehended its danger; and (iv) that the plaintiff would not have otherwise avoided the injury by the exercise of ordinary care. Urena v. Biro Manuf. Co., 114 F.3d 359, 363 (2d Cir. 1997) (citing Fane v. Zimmer, Inc., 927 F.2d 124, 128 (2d Cir. 1991)); see also Brazier v. Hasbro, Inc., No. 99-Civ-11258 (MBM), 2004 WL 515536 at *5 (S.D.N.Y. Mar. 16, 2004).

If a defendant's expert states that a defect in its product *could not* be the cause of the accident, plaintiff must rebut this assertion with admissible expert testimony. Speller v. Sears, Roebuck & Co., 100 N.Y.2d 38, 42, 760 N.Y.S.2d 79, 82, 790 N.E.2d 252, 255 (2003). Where causation is disputed, however, and plaintiff has provided "detailed, non-conclusory expert depositions and other submissions" refuting defendant's theory, summary judgment is not appropriate. Id. at 43-44 (concluding that the issue of what caused a fire was for a jury to decide, where each side's experts had competently interpreted burn patterns differently); see also Donald, *supra*, 2002 WL 32068351 (denying summary judgment where genuine issue of fact existed as to whether mechanic's failure to use jack stand was proximate cause of his injuries, and noting that accidents are rarely "monocausal" and that determination of whether defect was substantial cause is usually one for a jury). In fact, for a defendant to be entitled to summary judgment on causation, it must show that plaintiff's actions were the "sole" cause of his injuries, not merely a substantial contributing factor. Donald, *supra*, 2002 WL 32068351 at *6; Amatulli v. Delhi Constr. Corp., 77 N.Y.2d 525, 534, 569 N.Y.S.2d 337, 571 N.E.2d 645 (1991) (denying

summary judgment where defendant failed to show that plaintiff's conduct in diving into an above-ground pool was "sole" cause of injuries, sufficient to break chain of causation, where question of fact existed as to whether in-ground installation of above-ground pool created illusion of depth). Where plaintiff and defendant each have competent experts whose opinions are reliable but who reach opposite conclusions on causation, summary judgment is not appropriate. Donald, *supra*, 2002 WL 32068351 at *7. Cf. Amatulli, *supra*, 77 N.Y.2d at 533-34 and n.2 (affirming summary judgment on design defect claim where expert opinion was based on "bare conclusory assertions").

In analyzing the sufficiency of Plaintiff's evidence, I note first that Paxton's Affidavit (including portions not quoted by Plaintiff) refutes Defendant's expert's theory of causation with a detailed critique, based on his expertise in metallurgy and the facts of the case. (See Affidavit of Harold W. Paxton, Ph.D., Pl. Exh. 2, pars. 4-8). Paxton states that (i) Bretting agrees there were fatigue cracks in the head-tube/down-tube joint but fails to provide any support for his assertion that these cracks were caused by prior hard use of the Bike; (ii) Bretting fails to account for the fact that the front wheel was in usable condition even after the accident, even though Bretting concludes that the front wheel of the Bike must have been "pocketed" by an exposed rock on landing, which would have bent or buckled it; (iii) Bretting fails to show that his exemplar frame "fairly simulated the condition of the fatigue crack" in the Bike at the time of the accident; and (iv) Bretting states that the Owner's Manual warns riders to inspect the frame for signs of fatigue, however, according to Paxton, such fatigue cracks "are frequently invisible

even to trained eyes."[29] (Id.) On this basis, Plaintiff defeats Defendant's motion for summary judgment on the manufacturing claim. See Donald, *supra*, 2002 WL 32068351 at *7; Speller, *supra*, 100 N.Y.2d at 42.

Further, as noted above, I find that Paxton's own theories that a defective weld caused the frame to fail are credible and could lead to the inference that the fame failure caused the accident. See, e.g., Jarvis, *supra*, 283 F.3d at 45 and n. 6. Accordingly, Defendant has also failed to prove that Plaintiff's actions were the "sole" cause of his accident, and it is not entitled to summary judgment on the manufacturing defect claim on this basis either. See, e.g., Speller, *supra*, 100 N.Y.2d at 43-44.[30]

C. John S. Allen (Failure to Warn, Breach of Warranty)

Plaintiff offers the opinion of John S. Allen that the Y5 model bike was not designed for jumping and that Defendant failed to adequately warn consumers about this fact and about the dangers of jumping a Y5. (See Pl. Mem. at p. 5.) Allen's opinions undergird Plaintiff's failure to warn and breach of warranty claims. (Id. at 6-8.)

1. Allen's Qualifications

[29] Paxton's Affidavit also alleges the required elements that the Bike was not reasonably safe as marketed and that the defect was latent, and would not have been discovered or avoided using ordinary care.

[30] As discussed more fully below, a reasonable jury could find that jumping is a "normal" use of a bicycle. Cf. Brazier, *supra*, 2004 WL 515536 at *4-6 (finding that "normal" use requirement was not satisfied where injury was caused by child's insertion of a toy ball into its mouth, and where no allegation was made that the ball was defective or unsafe for ordinary uses of throwing, bouncing, rolling and catching).

Allen's purported areas of expertise are less traditional than Paxton's. Allen received a Bachelor of Science degree from the Massachusetts Institute of Technology in Electrical Engineering in 1975. His *curriculum vitae* lists his thesis as, "Designing, Patenting and Marketing an Innovative Musical Instrument." He also received a Bachelor of Arts degree from Middlebury College in German Literature in 1968.

Allen has been a Certified League of American Bicyclists Effective Cycling Instructor/League Cycling Instructor since 1982, and served as an Effective Cycling advisor "for Massachusetts" from 1990-95. His "Bicycling Affiliations" include membership on the Board of Directors of the Massachusetts Bicycle Coalition, an "advocacy organization," since 2003. From 1989-1992 he served as President of the predecessor organization, Boston Area Bicycle Coalition, and he served as Director of that group from 1982-85 and from 1987-1994. He has been active in the "Coalition" since 1977.

Allen also has been a member of the Board of Directors of the League of American Bicyclists, a national bicyclists' organization. From 1989-1993, he served as a member of that group's Consumer Affairs Committee, and drafted a policy on helmet laws. He was the founder and a member of that group's Massachusetts State Legislative Committee, and initiated the effort to draft a bicycle headlight bill signed into law in 1983, drafting a helmet bill signed into law in 1993. He states that he has been a "State Legislative Representative" since 1984, but it is not clear whether he means that he actually serves as a representative in the State government, or whether this role is an internal one with the League of American Bicyclists. He has been a League member since 1979, and a member of the Bicycle Committee of the National Council on Uniform Traffic Control Devices since 2003. In his capacity as a League member, he served on

an advisory panel to the National Council on Uniform Traffic Control Devices from 2000-03. Allen also is a member of various local cycling and bicycle safety organizations.

His "employment in the field of cycling" includes membership on a team that developed a national curriculum for police about bicycling in 2002, under contract with the Massachusetts Bicycle Coalition. In 2002, he was a "juror" for a bicycle industry design competition in Taiwan. In 2001, he assisted the Governor's Highway Safety Bureau in development of materials on bicycle safety. Since 1995 he has been conducting a study of bicycle use on the island of Martha's Vineyard.

Allen co-authored "Sutherland's Handbook for Bicycle Mechanics," and "Sutherland's Handbook of Coaster-Brake and Internally-Geared Hubs." He contributed to various Massachusetts State bicycling booklets and publications in the late 1980's and early 1990's. In the 1970's and 1980's, Allen co-authored various bicycling manuals and articles. Allen's *curriculum vitae* also notes that he is an avid cyclist, averaging 3,000 – 5,000 miles on a bicycle per year. (See Pl. Exh. A.)

Based on his background and experience, I find that Allen is qualified as an expert in the areas of the history of cycling, cycling trends and habits, and cycling safety. In these areas, he has extensive experience and expertise beyond that of an ordinary person. Since this case involves questions of whether Plaintiff's use of the Bike for jumping should have been foreseen by Trek, Allen's testimony may assist the trier of fact.

Given his lack of advanced scientific or technical training, however, I conclude that Allen is not qualified to testify about matters involving bicycle design or metallurgical engineering. (Allen's undergraduate degree was in electrical engineering; a bicycle is not an

electrical device.) Nor may he testify to matters the jury is capable of assessing for themselves, e.g., the content and adequacy of any warnings and the content of the videotape of the accident.

Plaintiff attached Allen's Affidavit to its moving papers but failed to include his actual Report. Fortunately, it was supplied by Defendant. In the Report, dated June 25, 2003,[31] Allen states that he reviewed Paxton's Report, as well as the depositions of DeRienzo, John Platt,[32] Jeremy Ball, a Jeff Amundsen,[33] Clint Kolda, Trek Catalogs from 1997-2001, documents produced by both parties in discovery, the video of the accident "at normal speed and in slow motion," selected frames as photographs, the Bike itself, and various bicycle-related literature (excerpts of which are attached to his Affidavit). He also took his own series of photographs of the Bike.

Allen's Report begins with a short section entitled, "Description of crash." Since the video on which this description must be based will likely be one of the key pieces of evidence admitted in this case, this section of the Report only describes evidence that the jury itself will

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[31] The letterhead on which Allen submitted his Report includes a caption with four bullet points listing what, I assume, he advertises as his professional services: "Technical writing, translation; Mechanical design, acoustics; Consultant on bicycling; Effective Cycling instructor."

[32] It appears from the excerpts of Platt's deposition submitted by Plaintiff that he is another Trek engineer, though the matter is far from clear, as the portion of his deposition that would detail his experience and employment was not included. I do not base any of my findings on this assumption, however, and the matter can be resolved at a later date.

[33] Neither party submitted any portion of the deposition transcript of Amundsen, so the Court has no idea who he is or what he said. As with Platt, however, nothing in this opinion rests on any assumption about Amundsen, so the matter need not be resolved here. If issues later arise about the testimony of Platt or Amundsen, and if any of Allen's admissible conclusions are called into question as a result, those issues will be resolved at that time, and nothing I say in this opinion should be construed to prescribe a certain result in that analysis.

view. Allen's description of a crash he did not witness adds nothing to the evidence itself and does not purport to explain an issue beyond lay ken. He may not testify about the matters discussed in this section of his Report. See Turner, *supra*, 362 F. Supp. 2d at 448.

The next section is entitled, "About welded aluminum as a bicycle frame material." This section of the Report states that steel tubing was the "traditional material for bicycle frames until the early 1970's." It describes some of the characteristics of steel, noting that bicycle frames made of steel "have traditionally carried a lifetime warranty against frame failure due to breakage." It then describes how aluminum came to be used as a material for bicycle frames, discusses specific characteristics of aluminum, and compares its performance (as a metal, not specifically as a bicycle frame material) with that of steel. This paragraph describes aluminum's progression to failure and describes what can happen if aluminum welding is not carried out "very carefully."

Allen may testify about the history of bicycle frames, which metals were used when (and why). But he may not testify about the specific characteristics of steel and aluminum, the comparison of these metals, the description of aluminum's progression to failure, and the description about what can happen if aluminum is welded without care. All of this is beyond Allen's expertise, and thus is not admissible. Indeed, Allen's comments about the properties of steel and aluminum would have been entirely proper – and only could be proper – coming from Paxton or someone with his level of training in metallurgy.

The next section is entitled, "Reinforcing the joints of bicycle frames." It begins with a statement that, "Several measures have been used to increase the strength of bicycle tubing near the joints, where it is weakened by brazing or welding and is subject to the highest stress." Allen

then describes two types of reinforcement, added material such as “lugs” and “gussets,” and varied thickness in the ends of the tubes called “butted tubing.” He states that, “Such measures can produce a lighter-weight frame while providing strength where it is needed.” The first sentence of the next paragraph states that, “The DeRienzo frame used tubing of constant cross-section, and with no added reinforcement at the head tube-main tube joint.” He then opines that the frame would have failed even if the joint had been reinforced.

I will allow Allen to testify about the common methods for reinforcing a bicycle frame. He may also opine that such techniques allow for strength and lighter weight, since his conclusion is one that is more likely based on his considerable knowledge and experience in the field of bicycling than on any scientific analysis.

However, Allen’s statement that this Bike was not reinforced will not be admitted. The jurors will see for themselves that there are no “lugs” or “gussets” or varied thickness in the tubing. Allen may tell the jury that methods for reinforcement exist and describe what they are and why reinforcement is important.

I also decline to allow Allen to opine that this Bike’s frame would have failed even if it had been reinforced. Allen is not qualified to speculate on issues of engineering and bicycle design.

A section entitled, “Replacement of components” follows. The only admissible opinion in this section about which Allen may testify at trial is the last sentence: “Replacement of original equipment parts is a normal and expected condition of bicycle use and maintenance.” As Allen is an expert on the history of bicycling and the habits of bicycle riders, his knowledge in this area exceeds that of the average lay person. His opinion is helpful to the trier of fact because

it addresses whether Plaintiff's use of the Bike – including his replacement of many parts – should have been expected by Trek.

The rest of that paragraph states that (i) some components on the Bike were not original (for which the jury will not need an expert, since Plaintiff himself will testify to his replacing specific parts); (ii) that the replacement of the front fork was the "only one" of these replaced parts that might have affected the stress on the frame (which is a question of bicycle design or engineering, beyond Allen's expertise); and (iii) that there was no evidence that the replacement Rock Shox fork malfunctioned (again, a question of bicycle engineering). He may not opine about any of this.

The next section is entitled, "Use of the bicycle off road." This section describes the history and development of mountain biking as a sport, its origins in BMX racing, and the way mountain bikes are commonly used. Significantly, Allen states that Plaintiff's type of "hard use in off-road riding . . . is entirely foreseeable and to be expected." He also states that, "The expectation of cyclists has always been that any bicycle component which did not show immediate evidence of damage – typically, a bent frame, fork, rim or axle, or a pinch-flatted tire – was still serviceable." This testimony is admissible.

Allen's comments about what the Trek catalogs show (i.e., that "Trek was well aware of rough use, telling of riding over large logs, and the like") are not necessary, since the jury will be able to examine the catalogs and read the text for themselves. Likewise, his comments about what Paxton's testing showed are not admissible (as only Paxton need testify to his own results).

The last paragraph of that section appears to be an analysis of the forces exerted on the frame during the landing. I will not allow Allen to opine on this issue.

Allen's Report closes with a list of his conclusions. The only admissible opinions in the conclusion are (1) that the "use of the DeRienzo bicycle off-road, including jumps and drop-offs within limits that did not cause immediately obvious damage to the bicycle, was a normal and expected use;" and (2) that the "replacement of components on the DeRienzo bicycle was a normal and expected condition of use of a bicycle."

Defendant attacks Allen's qualifications, specifically claiming that his opinions are inadmissible because: (i) Allen is a cycling safety instructor with no training or qualifications with respect to bicycle design, "wouldn't consider" himself an expert in bicycle design, and concedes that designing a bicycle frame would involve "issues of material science and structural engineering, which are beyond" his expertise; (ii) there is no proof that Allen has special training in interpreting warning labels; (iii) Allen has no special knowledge about mountain biking, has owned only one mountain bike which he gave up after 20 miles because the sport was "too stressful," has never jumped a mountain bike, has never seen a mountain bike crash, and acquired his only knowledge about mountain biking from reading consumer mountain biking books between his deposition and providing his report; (iv) Allen offers no reliable methodology, analysis or testing to support his opinion that the Y5 model is not designed for jumping or that Defendant's warning about jumping is defective, cites no standards, authorities or testing, and offers no proof that the alternative warnings he references are more effective than Defendant's warnings about stunt jumping or that these manufacturers' customers have fewer accidents or injuries; (v) Allen's opinion that Defendant failed to warn a rider to use a full-face helmet was not included in his expert report nor mentioned during his deposition; and (vi) Allen does not address the conspicuousness of Defendant's existing warning and offers no alternative.

(Def. Mem. at pp. 23-24; Def. Reply Mem. at pp. 6, 8-10.) As he did with Paxton, Plaintiff only quotes from Allen's Affidavit, dated January 28, 2004, in a manner that can be read (very liberally) to refute Defendant's arguments.

While I agree with some of Defendant's assertions – most notably, that Allen is not qualified to testify to matters involving bicycle design engineering – I find that many of Allen's opinions are in fact based on his experience and knowledge as an expert in bicycling history and current trends in cycling. See Kumho Tire, *supra*, 526 U.S. at 138-39.

To sum up, Allen may testify to the following (only):[34]

1. Steel tubing was a traditional material for bicycle frames until the early 1970's. Bicycles frames made of steel traditionally carried a lifetime warranty against frame failure due to breakage. In the 1970's aluminum tubing bicycle frames were developed, which were lighter and stiffer than the steel frames.

2. Replacement of original equipment parts is a normal and expected condition of bicycle use and maintenance.

3. Mountain biking grew out of BMX racing. Hard use of a mountain bike in off-road riding is foreseeable and expected. Cyclists expect that a bicycle component that does not show signs of damage is still serviceable.

Having determined the parameters of Allen's admissible testimony, I turn now to the question of whether Plaintiff has met its burden to withstand summary judgment on the failure to warn and breach of warranty claims. I find that he has.

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[34] I do not prescribe the wording of Allen's admissible testimony, only the subjects on which he may opine. No opinions of Allen that were not testified about at his EBT are admissible. See Endorsed Memo, dated December 5, 2003.

2. Failure to Warn

Under New York law, a manufacturer who places a defective product on the market that causes injury may be held strictly liable for the ensuing injuries if the product is not accompanied by adequate warnings for the use of the product. Liriano I, *supra*, 92 N.Y.2d at 243. The failure to warn must be a proximate cause of plaintiff's injuries. See Voss, *supra*, 59 N.Y.2d at 107.

The elements of a failure to warn claim are: (i) a danger existed to a significant portion of defendant's consumers requiring additional warning; (ii) the alleged danger was known or reasonably foreseeable; and (iii) a proposed alternative warning would have prevented Plaintiff's accident. Gebo v. Black Clawson Co., 92 N.Y.2d 387, 392, 681 N.Y.S.2d 221, 224, 703 N.E.2d 1234 (1998). A plaintiff does not have the burden, at the summary judgment stage, to show that an adequate warning would have prevented his injury. Liriano v. Hobart Corp., 170 F.3d 264, 271 (2d Cir. 1999) ("Liriano II"). Where the type of injury suffered by plaintiff is "exactly the kind of injury" that a warning might have prevented,

> rather than require the plaintiff to bring in more evidence to demonstrate that his case is of the ordinary kind, the law presumes normality and requires the defendant to bring in evidence tending to rebut the strong inference, arising from the accident, that defendant's negligence was in fact a but for cause of the plaintiff's injury.

Id. at 271 (citing Zuchowicz v. United States, 140 F.3d 381, 388 nn. 6-7 (2d Cir. 1998)).

Some courts in this Circuit have held that a manufacturer may be held liable for injuries caused by its failure to warn of the dangers arising from the foreseeable misuse or modification of the product as well. See Liriano I, *supra*, 92 N.Y.2d at 240; Hedstrom, *supra*, 76 F. Supp. 2d at 445 (noting that manufacturer has a duty to warn of danger of reasonably foreseeable,

unintended uses and misuses of a product); see also Beneway v. Superwinch, Inc., 216 F. Supp. 2d 24, 29-30 (N.D.N.Y. 2002) (denying summary judgment where there were questions about whether it was reasonably foreseeable that customers would use a product a certain way and whether defendant adequately warned users of the existence of and need for an optional safety latch). Under this line of cases, evidence that a manufacturer might reasonably have foreseen a particular type of misuse raises an issue of fact that precludes the granting of summary judgment. Darsan v. Guncalito, 153 A.D.2d 868, 871, 545 N.Y.S.2d 594 (2d Dep't 1989); see also Miller v. Anetsberger Bros., Inc., 124 A.D.2d 1057, 1059, 508 N.Y.S.2d 954, 956 (4th Dep't 1986) (question of fact existed as to whether defendant had a duty to warn plaintiff of the danger of cleaning a machine while rollers were operating, given that safety was easy to disengage, manufacturer knew users cleaned while rollers were operating and also knew that it was more convenient to do so). The Liriano I court noted that there is "no material distinction between foreseeable misuse and foreseeable alteration of a product," and that, "in certain circumstances, a manufacturer may have a duty to warn of dangers associated with the use of its product even after it has been sold." 92 N.Y.2d at 240 n.2. This is a fact-specific inquiry. Id. In addition, "A manufacturer's superior position to garner information and its corresponding duty to warn is no less with its ability to learn of modifications made to or misuse of a product." Id. at 240-41.

Other courts have held that strict liability cannot attach unless a product is being used in a "normal" manner. See, e.g., Brazier, *supra*, 2004 WL 515536 at *5 (noting that Hedstrom and Beneway were decided after Urena, *supra*, 114 F.3d at 364 n.2, but failed to mention that case,

which adhered to the requirement that the use had to be "normal").[35]

An expert opinion accompanied by submissions showing industry-wide advertisements encouraging a particular use of a product is probative on the issue of whether defendant knew its product was being used in a certain manner. Amatulli, *supra*, 77 N.Y.2d at 533-34 and n.2. This duty is not open-ended, however, and a manufacturer is not required to insure that subsequent owners and users will not adapt the product to their unique uses. Liriano I, *supra*, 92 N.Y.2d at 238.[36]

The adequacy of a warning is generally a question of fact for the jury. See Urena, *supra*, 114 F.3d at 366. The adequacy of a warning is only a question for the judge when the warning is accurate, clear and unambiguous. See, e.g., Hayes v. Spartan Chem. Co., 622 So. 2d 1352 (Fla. Dist. Ct. App. 1993). A warning that is inconspicuously located and written in small print may

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[35] I decline to reconcile these two lines of cases until necessary – that is, if or when the jury in this case concludes that modifying and/or jumping a Y5 bike is a "misuse" of such a bike. For reasons discussed below, however, I find it highly unlikely that a jury would so conclude, because Plaintiff was *riding the Bike* when he jumped it and had the accident. This case is nothing like Brazier, where a child tried to *eat* a toy ball and that use was not considered "normal." 2004 WL 515536 at *6.

[36] The Liriano case involved a plaintiff whose hand was caught in a meat grinder manufactured by defendant. The machine came with a safety latch, which, arguably, would have prevented plaintiff's injuries, but someone had removed the safety before plaintiff used the machine. One question was whether the defendant could be liable for failure to warn of the dangers of using the machine without the safety, even though the existence of the safety feature precluded a design defect claim. The Second Circuit Court of Appeals certified this question to the New York Court of Appeals, which answered the question in the affirmative. Even though the case at bar no longer includes a design defect claim, the Liriano case is instructive in its examination of a manufacturer's duty (under that line of cases) to warn of the dangers of using a modified product, where the manufacturer knew or should have known that consumers were modifying its product in a certain way. But see, e.g., Urena, *supra*, 114 F.3d at 364 n.2 (noting that a manufacturer cannot be strictly liable when its product has been "substantially altered" but concluding that a question of fact existed as to whether plaintiff's injury was caused by a defect or a modification).

be deficient. Arbaiza v. Delta Int'l Machinery Corp., No.96-Civ-1224 (RJD), 1998 WL 846773 (E.D.N.Y. Oct. 5, 1998).

One issue that typically precludes summary judgment on a failure to warn claim is whether the information contained in any issued warning was "commensurate with the manufacturer's knowledge of the nature and extent of the dangers from foreseeable use of its product." Cooley v. Carter-Wallace Inc., 102 A.D.2d 642, 648-49, 478 N.Y.S.2d 375 (4th Dept. 1984); Johnson v. Johnson Chem. Co., Inc., 183 A.D.2d 64, 69, 588 N.Y.S.2d 607 (2d Dept. 1992) (noting that "Whether a particular way of misusing a product is reasonably foreseeable, and whether the warnings which accompany a product are adequate to deter such potential misuse, are ordinarily questions for the jury.")

Finally, failure to read a warning is not dispositive. Hedstrom, *supra*, 76 F. Supp. 2d at 445. While it is true that, in many cases, a plaintiff who admits that he failed to read a warning that was issued with the product will have failed to show that any deficiency in that warning was the proximate cause of his injuries, plaintiff's failure to read an insufficiently conspicuous or prominent warning will not necessarily defeat the causation element of a failure to warn claim. See, e.g., Sosna v. Am. Home Products, 298 A.D.2d 158, 158, 748 N.Y.S.2d 548 (1st Dep't 2002) (citing Hedstrom, *supra*, 76 F. Supp. 2d at 443-44 and Johnson, *supra*, 183 A.D.2d 64 and distinguishing those two cases from the situation where a plaintiff has simply alleged a warning was substantively inadequate but has failed to read it); Arbaiza, *supra*, 1998 WL 846773 at *7 (finding that plaintiff, who could not read English, could bring a failure to warn claim even though he admitted that he did not read the warning that accompanied the product, which was in English and arguably inconspicuous). The Hedstrom court also noted that summary judgment is

particularly inappropriate where a third party might have read a warning and passed it on to the plaintiff.[37] 76 F. Supp. 2d at 445.

Plaintiff asserts that his use of the Bike for jumping was typical of aggressive mountain bikers – so, normal and not a misuse – and that Trek was aware that riders such as he would purchase a Trek Y5 bike for jumping. Allen's admissible opinions support this claim. Plaintiff asserts that Trek did not warn of the dangers of jumping at all, and that its buried admonitions in an Owner's Manual to check the frame for damage were inadequate because they were inconspicuous and also because a visual inspection of the frame would not lead to the discovery of the type of damage that caused the frame to fail – namely, fatigue cracks in the head tube/down tube weld. (Pl. Mem. at 2-3.)

Defendant counters that jumping was not a normal use of a Y5 bike, that Plaintiff misused the Bike causing damage to the frame, that Trek did adequately warn of the dangers of jumping a Y5 Bike, and, as above, that any possible failure to warn was not the proximate cause of the accident in any case. Specifically, Defendant claims Plaintiff cannot recover for failure to warn because (i) Plaintiff admits he never saw an Owner's Manual; and (ii) the accident was

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[37] The Hedstrom court examined the "realities of society" in determining whether a warning might have been conveyed to plaintiff via a third party. Hedstrom, *supra*, 76 F. Supp. 2d at 445 n. 22; see also Ferebee v. Chevron Chem. Co., 736 F.2d 1529, 1539 (D.C. Cir.), cert. denied, 469 U.S. 1062, 105 S. Ct. 545, 83 L. Ed. 2d 432 (1984). The Hedstrom court noted that a witness to the accident, who testified that she was concerned about how plaintiff was using the product but did not say so at the time, might have spoken up had an adequate written warning accompanied the product. Hedstrom, *supra*, 76 F. Supp. 2d at 445 n.23. Similarly, the Ferebee court noted that "if the jury could reasonably have found that the information on an adequately labeled [product] would have been communicated to the plaintiff – even if he personally did not read the warning – the failure to provide such warning could validly be treated as a proximate cause of [plaintiff's] injury."

caused by his misuse of the Bike and his poor jumping technique. (See, e.g., Def. Mem. at pp. 1-3, 20-22.)

Since Allen's testimony that jumping is an "entirely foreseeable" and "expected" use of a mountain bike is admissible, I find that Plaintiff withstands summary judgment on that issue. Further, Allen opines that it was foreseeable that a user would modify a bike the way Plaintiff modified this Bike, i.e., by replacing (among other components), the standard fork with a Rock Shox fork, which the parties agree is designed for jumping (see *supra* p. 5). This could lead to an inference that Trek knew users would modify Y5 bikes to make them more suitable for jumping.

Further, Exhibits B, C, and D to Allen's Affidavit are copies of pages from mountain biking books, all of which include references to jumping and some of which show pictures of mountain bikers airborne on their bikes. In addition, Plaintiff's Exh. 18 shows pages of a 1998 Trek Catalog that includes at least one picture of an airborne mountain biker (the page shows Y model bikes, but not the Y5 model, which appears on the next page, where there is no picture of a rider). Based on this evidence and Allen's testimony, a jury would be entitled to find that it is both common for mountain bikers to jump their bikes and common for Trek consumers to modify Y5 model bikes to make them more suitable for jumping. See, e.g., Amatulli, *supra*, 77 N.Y.2d at 533-34.[38] If a jury so concluded, it could also conclude that Trek knew or should have known it had a duty to warn explicitly of the dangers of using a Y5 model for jumping. See, e.g., Darsan, *supra*, 153 A.D.2d at 871.

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[38] Of course, at this stage I do not conclude that Plaintiff has proven these things, only that it has adduced enough proof to submit the issue to a jury.

As for the Owner's Manual, the fact that the parties submitted two different versions with substantially different warnings and graphics is enough to raise triable issues of fact on the failure to warn claim. Moreover, both Manuals contain warnings on almost half of their pages, which could lead a jury to conclude that any warning against jumping was inconspicuous – in either Manual. See Arbaiza, *supra*, 1998 WL 846773 at *7; Sosna, *supra*, 298 A.D.2d at 158. Thus, it is far from clear whether Trek warned Y5 users not to jump or of the dangers of jumping, and if it did, whether those warnings were conspicuous and/or adequate. Thus, even if I adhere to the stricter standard barring failure to warn claims where a plaintiff has failed to read a conspicuous or adequate warning, Plaintiff's claims withstand summary judgment. There is also a dispute about whether Trek pasted a warning on the Bike itself – and, if so, to which version of the Owner's Manual it referred – which precludes summary judgment.

In addition, based on Hedstrom and Ferebee, a jury could conclude that, had an adequate warning against jumping been issued with the Bike (or Y5's generally), the "realities of society" – i.e., the realities of the mountain biking community – might have resulted in Plaintiff's friends advising him not to use a Y5 model for jumping, even if Plaintiff had not read the warning himself. 76 F. Supp. 2d at 445 nn. 22, 23. Thus, Defendant's motion for summary judgment on the failure to warn claim must be denied.

3. Breach of Warranty

A plaintiff injured by a defective product may recover for breach of warranty under New York law. This remedy, grounded in various provisions of the New York Uniform Commercial Code, has not been subsumed by the tort cause of action for strict products liability. See Castro

v. QVC Network, Inc., 139 F.3d 114, 117-18 (2d Cir. 1998); Denny v. Ford Motor Co., 87 N.Y.2d 248, 256, 639 N.Y.S.2d 250 (1995).

A product must be "fit for the ordinary purposes for which such goods are used" to be considered merchantable under New York's version of the Uniform Commercial Code. Brazier, *supra*, 2004 WL 515536 at *4 (quoting N.Y. U.C.C. § 2-314(2)(c)). Thus, liability for breach of warranty depends on "the expectations for the performance of the product when used in the customary, usual and reasonably foreseeable manners." Denny, *supra*, 87 N.Y.2d at 258-59. Accordingly, a plaintiff must show that the product "was being used for the purpose and in the manner intended." Beneway, *supra*, 216 F. Supp. 2d at 30. Privity of contract is not required in a personal injury action for breach of warranty. Heller v. U.S. Suzuki Motor Corp., 64 N.Y.2d 407, 411, 488 N.Y.S.2d 132, 477 N.E.2d 434 (1985).

Where there are questions about whether a product was being used in a reasonably foreseeable manner, summary judgment is not appropriate. Id. at 30.

Thus, Plaintiff's breach of warranty claim requires proof that the Bike did not meet expectations for performance because it failed during his jump or landing, which was a reasonably foreseeable use of the Bike. As noted above, Plaintiff has supplied admissible evidence sufficient to raise a genuine issue of fact on the question of whether the Y5 was marketed for use in jumping. This, combined with Clint Kolda's testimony, noted above, that taking a Y5 model bike off a 5-foot drop would constitute a "crash," could indicate that jumping was reasonably foreseeable, but that the Y5 was not designed or reasonably safe for such use. See Beneway, *supra*, 216 F. Supp. 2d at 30; cf. Brazier, *supra*, 2004 WL 515536 at *4 (granting summary judgment on a breach of warranty claim, where child had placed ball in mouth and

where "no reasonable jury could conclude that a toy ball is performing an ordinary purpose when a child inserts it into his mouth.") Accordingly, Defendant's motion for summary judgment on breach of warranty also must be denied.

IV. Conclusions

(1) Defendant's motion for summary is denied in full.

(2) Plaintiff's experts, Harold W. Paxton, Ph.D., and John S. Allen, are qualified to testify within the parameters set by this opinion.

(3) Plaintiff has withdrawn his design defect claim. The remaining claims sound in negligence, breach of warranty and strict products liability (manufacturing defect and failure to warn).

This constitutes the decision and order of the Court.

Dated: July 14, 2005

U.S.D.J.

By Fax to All Parties